

## ABSTRACT OF THE DISCLOSURE

A metal oxide electrode coated with a porous metal film, a metal oxide film or a carbon film, its fabrication method and a lithium-ion secondary battery using it are disclosed. The porous thin film of Li, Al, Sn, Bi, Si, Sb, Ni, Cu, Ti, V, Cr, Mn, Fe, Co, Zn, Mo, W, Ag, Au, Pt, Ir, Ru, carbon or their alloys are coated to a few Å ~ a few μm, so as to remarkably improve the capacity of a battery, high rate charging and discharging characteristics and a durability characteristic. The method can be applied to a fabrication of every secondary battery.

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